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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/046,273	01/16/2002	Ulrich Kaczynski	016790-0450	3526

22428 7590 09/17/2003

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EXAMINER

VERBITSKY, GAIL KAPLAN

ART UNIT PAPER NUMBER

2859

DATE MAILED: 09/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/046,273

Applicant(s)

KACZYNSKI, ULRICH

Examiner

Gail Verbitsky

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-17 and 22 is/are allowed.
- 6) ☒ Claim(s) 1-9, 18-21 and 23-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 24-26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. In this case, the limitations of claims (i.e., interrupting the light path) 24-26 are not described in the specification.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 24-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In this case, the claim language is confusing due to the reasons stated above in paragraph 2.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. Claims 1-4, 6-9, 18-20 are rejected under 35 U.S.C. 102(a) as being anticipated by Reimer.

For claim 1: Reimer discloses in Fig. 1 a device comprising an impact detection element (compressible/ flexible/ elastic foam block 24, 94 and plate 16, a light source having an emission surface 26a and coupled to a housing 12, a receiving element 26b defining a receiving surface opposite to the emission surface of the light source 26a.

For claim 2: As shown in Fig. 1, the receiving surface and the emission surface are of substantially the same size.

For claim 3: the light source comprises a light guiding fiber, and the emission surface 26a defines the end of the fiber.

For claim 4: the receiving surface receives a light signal and a processor 30 (intensity sensor) generates an electrical signal corresponding to the received light.

For claim 6: the impact detection is movably connected to the housing 12 via elastically bendable rod/ foam.

For claim 7: the elastically bendable rod 24 is connected to the housing 12 by means of planar retainer/ baseplate 14.

For claim 8: as shown I Fig. 1, the impact detector, the baseplate, the rod and the receiving element constitute (manufactured as) a single struture.

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For claims 9, 20: the electrical signal obtained as the result of the light received by the receiver, can be used to evaluate the impact/ collision, and thus, inherently, to control movement operation.

For claim 18: the foam 24 of the impact detector is an optical (translucent) component supported by the housing 12.

For claim 19: it is inherent that the produces electrical signal is of a power level corresponding to the light signal striking the receiving surface.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 8, 18, 21, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reimer.

Reimer discloses the device as stated above in paragraph 6.

Reimer does not explicitly teach the limitations of claims 8, 18, 21, 23.

With respect to the preamble of claim 18: the preamble of the claim has not provided enough patentable weight because it has been held that a preamble is denied the effect of a limitation where the claim is drawn to a structure and the portion of the claim following the preamble is a self-contained description of the structure not depending for

completeness upon the introductory clause. Kopa v. Tobie, 88 USPQ 478 (CCPA 1951).

With respect to claim 8: the method of forming the device is not germane to the issue of patentability of the device itself. Therefore, this limitation has not been given patentable weight.

With respect to the particular light path (length) between the emission and receiving surface, that is smaller than a cross section of the receiving and emission surface, as stated in claims 21, 23, the particular light path (length/ size), absent any criticality, is only considered to be the "optimum value" of the light path length disclosed by Reimer that a person having ordinary skill in the art would have been able to determine using routine experimentation based, among other things, on the desired accuracy of the device, etc. In re Boesch, 205 USPQ 215 (CCPA 1980).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the length of the light path, disclosed by Reimer, less than the cross section of the emission surface, so as to minimize loss of the signal, and thus, to achieve a desired accuracy of the device.

9. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reimer in view of GB 2185359 A [hereinafter GB].

Reimer discloses the device as stated above in paragraph 6.

Reimer does not explicitly disclose that the receiver has a reflective surface to direct the light to the at least one optical fiber, as stated in claim 5.

GB teaches in Fig. 1 a device whose receiver (6, 15, 4) having a reflective surface (mirror) 4 directing (reflecting) a light illuminated (emitted) from a fiber (light source) 7 onto a receiving fiber 6 of a receiver 15.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add a reflective surface (mirror) as taught by GB, to the device, disclosed by Reimer, so as to direct the emitted radiation directly onto a transmitting fiber and eliminate losses of the radiation.

Allowable Subject Matter

10. Claims 24-26 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

11. Claims 10-17, 22 are allowed.

Response to Arguments

12. Applicant's arguments with respect to claims 1-9, 18-23 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

13. The prior art made of record and not relied upon considered pertinent to applicant's disclosure.

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14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Verbitsky who can be reached at (703) 306-5473 Monday through Friday 7:30 to 4:00 ET.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-5473.

GKV

Gail Verbitsky 
Patent Examiner, TC 2800

September 05, 2003